

IN THE CLAIMS:

The text of all pending claims, (including withdrawn claims) is set forth below. Cancelled and not entered claims are indicated with claim number and status only. The claims as listed below show added text with underlining and deleted text with ~~striketrough~~. The status of each claim is indicated with one of (original), (currently amended), (cancelled), (withdrawn), (new), (previously presented), or (not entered).

Please ADD new claims 9-19 in accordance with the following:

1. (ORIGINAL) A kit for a rotary encoder, comprising:
a plurality of signal generating members for generating mutually different signals, any selected one of said signal generating members being able to be attached in an exchangeable manner to a rotary body; and
a signal sensing unit arranged in close proximity to one selected signal generating member attached to said rotary body, for sensing a signal generated due to a rotation of said signal generating member;
wherein said plurality of signal generating members are respectively formed in such a manner that numbers of signal-cycles and signal-intervals in signals generated during a unit rotation of respective signal generating members are different from each other, while products of said numbers of signal-cycles multiplied by said signal-intervals in said signals are generally identical to each other.
2. (ORIGINAL) A kit for a rotary encoder, as set forth in claim 1, wherein each of said plurality of signal generating members is a circular plate member having an outer circumferential surface, and wherein a signal generating element for generating said signal is provided on said outer circumferential surface of each signal generating member.
3. (ORIGINAL) A kit for a rotary encoder, as set forth in claim 2, wherein said plurality of signal generating members have outer diameters generally identical to each other.
4. (ORIGINAL) A kit for a rotary encoder, as set forth in claim 1, wherein each of said plurality of signal generating members is an annular member having an inner circumferential surface, and wherein an attachment portion for detachably attaching each signal generating member to the rotary body is provided in said inner circumferential surface.

5. (ORIGINAL) A kit for a rotary encoder, as set forth in claim 4, wherein said plurality of signal generating members have inner diameters generally identical to each other.

6. (ORIGINAL) A kit for a rotary encoder, as set forth in claim 1, wherein each of said plurality of signal generating members includes a signal generating element comprising at least one tooth.

7. (ORIGINAL) A kit for a rotary encoder, as set forth in claim 1, wherein each of said plurality of signal generating members includes a signal generating element comprising at least one magnetized pattern.

8. (ORIGINAL) A rotary encoder, comprising:

a first signal generating member for generating a first signal, said first signal generating member being able to be attached to a rotary body, in a manner as to be exchangeable with a second signal generating member for generating a second signal different from said first signal; and

a signal sensing unit arranged in close proximity to said first signal generating member attached to said rotary body, for sensing said first signal generated due to a rotation of said first signal generating member;

wherein said first signal generating member is formed in such a manner that a number of signal-cycles and a signal-interval in said first signal generated during a unit rotation of said first signal generating member is different from a number of signal-cycles and a signal-interval in said second signal generated during a unit rotation of said second signal generating member, while a product of said number of signal-cycles multiplied by said signal-interval in said first signal is generally identical to a product of said number of signal-cycles multiplied by said signal-interval in said second signal.

9. (NEW) An apparatus, comprising:

a rotary body; and

at least two signal generating members, each signal generating member exchangeably attachable to the rotary body, each signal generating member having approximately the same outer diameter as the other signal generating members and each including a signal generating element having a signal-generation pitch different from the other signal generating members.

10. (NEW) The apparatus according to claim 9, further comprising a signal sensing unit arranged in close proximity to the rotary body having one of the signal generating members attached, the signal sensing unit capable of sensing a signal generated by the signal generating member during a unit rotation of the signal generating member.

11. (NEW) The apparatus according to claim 9, wherein the signal generating members have an outer circumferential surface, each of the signal generating elements being provided on the outer circumferential surface of each signal generating member.

12. (NEW) The apparatus according to claim 11, wherein the signal generating element comprises at least one tooth, and wherein the products of the number of teeth in each signal generating member multiplied by the pitches between the adjacent teeth of each signal generating member are generally identical to each other.

13. (NEW) The apparatus according to claim 12, wherein the respective products of the total teeth number and the teeth pitches corresponds to the circumferential length of the outer circumferential surface of each of the signal generating members.

14. (NEW) The apparatus according to claim 11, wherein the signal generating element comprises at least one magnetized pattern, and wherein the products of the number of teeth in each signal generating member multiplied by the pitches between the adjacent magnetized patterns of each signal generating member are generally identical to each other.

15. (NEW) The apparatus according to claim 14, wherein the respective products of the total teeth number and the teeth pitches corresponds to the circumferential length of the outer circumferential surface of each of the signal generating members.

16. (NEW) The apparatus according to claim 10, wherein the signal sensing unit includes a magnetic sensing element and a bias magnet.

17. (NEW) The apparatus according to claim 9, wherein the signal generating members each have inner diameters generally identical to each other.

18. (NEW) The apparatus according to claim 9, wherein the signal generating members each have a through hole defined therein into which the rotary body is inserted.

19. (NEW) The apparatus according to claim 9, wherein the signal generating members each have a bottomed hole defined therein for partially receiving the distal end of the rotary body.